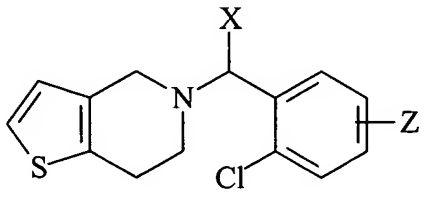
THE EMBODIMENTS OF THE INVENTION IN WHICH AN EXCLUSIVE PROPERTY OR PRIVILEGE IS CLAIMED ARE AS FOLLOWS:

1. A process for the preparation of tetrahydrothieno[3,2-c]pyridine derivatives of the general formula **6**:



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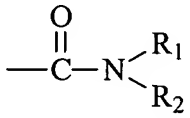
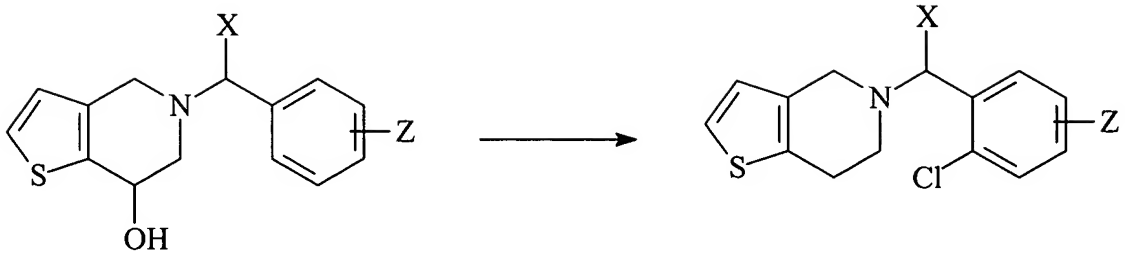
or their pharmaceutically acceptable salts, wherein the meaning of X is carboxyl, alkoxycarbonyl, aryloxycarbonyl, or carbamoyl of formula



wherein R_1 and R_2 can be individually or simultaneously hydrogen, alkyl or part of a heterocyclic structure; Z can be hydrogen, halogen, alkyl, aryl, aryloxy or alkoxy group, the process comprising conducting a dehydroxylation reaction on the compound of formula **5** in order to obtain a compound of formula **6**, wherein said dehydroxylation reaction is effected by iodosilane represented by the formula $Si(R_3)_3I$, wherein R_3 selected from an alkyl, alkenyl, alkynyl, aromatic group, or combinations of thereof.



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2. The process of Claim 1 wherein said iodosilane is iodotrimethylsilane (TMSI).

3. The process of Claim 1 or 2 wherein said iodosilane is generated *in situ* in the reaction between chlorosilanes of formula $Si(R_4)_3Cl$ and sodium iodide, wherein R_4 is selected from an alkyl, alkenyl, alkynyl, or aromatic group, or combinations of thereof.

4. The process of Claim 3 wherein said chlorosilanes is chlorotrimethylsilane.

5. The process of Claim 1 wherein the compound of formula **6** is racemic or enantiomerically enriched Clopidogrel or pharmaceutical salts thereof.

6. The process of Claim 1 or 2 wherein the compound of formula **5** is in a free base form or in a salt form.

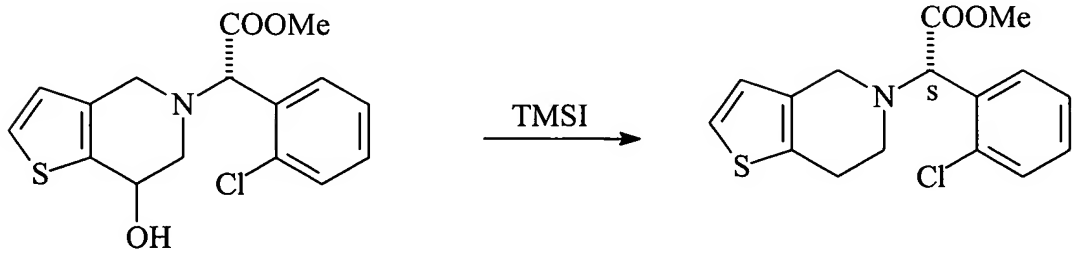
7. The process of Claim 1 wherein the reaction is conducted under a polar aprotic solvent, an aromatic solvent , or mixtures thereof.

8. The process of Claim 7 wherein the polar aprotic solvent is selected from acetonitrile, CH_2Cl_2, *N, N'*-dimethylformamide and combinations thereof.

9. The process of Claim 7 wherein the aromatic solvent is selected from toluene and equivalent thereof.

10. A process for the preparation of compound of formula **1** or its pharmaceutically

acceptable salts thereof, comprising conducting a dehydroxylation reaction on the compound of formula **9** or its salts thereof, wherein said dehydroxylation reaction is effected by iodotrimethylsilane (TMSI).



9 **1**

11. The process of Claim 10 wherein the reaction is conducted under a polar aprotic solvent, an aromatic solvent , or mixtures thereof.

12. The process of Claim 11 wherein the polar aprotic solvent is selected from acetonitrile, CH_2Cl_2, *N, N'*-dimethylformamide and combinations thereof.

13. The process of Claim 11 wherein the aromatic solvent is selected from toluene and equivalent thereof.